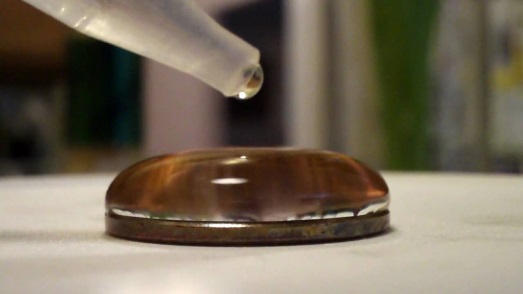
**Properties of Water Lab – HINTS!**

Mrs. Krouse, Pre-AP Biology, 2015-2016

**Part C: How many drops of water will fit on a clean penny?**



-You should have seen a large bead form on the surface of the penny (see image to the right).

-The property of water you choose for Question #7 in Part C should relate to the following question… “Why do the water molecules tend to come close together to form a bead rather than moving away from each other and spilling over the sides of the penny?”

**Part D: How many drops of water will fit on a soapy penny?**

-You should have fit more drops of water on the clean penny than the soapy penny before the water spilled over the sides of the penny. If your data does not show this, then change your data for Question #6 in Part C and Question #5 in Part D to another group’s data.

-To answer Question #7 in Part D, you must think about how soap affected the bonds between the water molecules to cause the water to behave differently than it did in Part C.

**Part E: Drop Shape-On a Glass Slide and Waxed Paper**

-Water should stay mostly in place when the glass slide is shaken. In contrast, the water bead on the wax paper should move when the wax paper is shaken.

-Polar substances (ex: water) are attracted to other polar substances and repelled by nonpolar substances.

**Part F: Pepper Flakes and Water**

-For Question #1 in Part F, it may help to know that pepper flakes float on the surface of water for the same reason that water strider insects can “walk on water.”

-For Question #3 in Part F, it may help to revisit your answer to Question #7 in Part D. Then, think about how the bonds between water molecules on the surface of the water are affected by the soap from the toothpick in Part F. This will help you to explain what happened to the pepper flakes when the toothpick was inserted into the water.